

In the Drawing:

Please accept the attached replacement drawing sheet with the changes in figures 1 and 2 and approve the changes in figures 1 and 2. These changes have been made to indicate a continuous outer surface formed on the outer sides of the supporting edge and the holding edge.

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REMARKS

I. Allowed Claim 16

Method claim 16 was allowed. None of the prior art references disclose a method of making a lens with lens surfaces that are bright pressed.

II. Changes in the Claims, Specification and Drawing

Claims 8, 14 and 17 have been amended to include a feature of a preferred embodiment of the invention, namely that the supporting edge 5 and the holding edge 4 together form a continuous cylindrical outer circumferential surface 45 extending over an outer side of the supporting edge and an outer side of the holding edge 4 as well as around an outer circumference of the lens.

This added feature is not new matter, because the drawing figures can provide the basis for changes in the specification and claims (see MPEP 608.04 and 608.01 (o)). The original figure 1 clearly shows that the supporting edge 5 is not set in or back from the outer peripheral edge of the lens. Figure 1 clearly shows that the outer surface of the supporting edge and the outer surface of the holding edge both extend to the outer peripheral edge of the lens and together form a continuous cylindrical surface, which has been given the drawing reference number 45.

This added feature helps to adapt the lens 1 to the holder 10, which has a

circumferential cylindrical wall 11 that firmly engages with the lens by means of the inwardly curved flaps according to amended claim 14.

A substitute drawing sheet with the additional reference number 45 accompanies this amendment. Approval of the changes in the drawing figures is respectfully requested. In addition, a paragraph describing the continuous cylindrical surface 45 has been added to the disclosure.

Furthermore additional features regarding the holder structure have been added to claim 14. Claim 14 now states that the circumferential cylindrical wall 11 of the holder 10 bears on the continuous cylindrical outer circumferential surface 45. Claim 14 also states that the flaps 12 engage under the supporting edge 5. These features are not new matter because they are shown in the structure shown in the originally filed figure 2, which is described on page 4 of applicants' specification.

III. Obviousness based on Iwase, et al

Claims 8 to 15 and 17 were rejected as obvious under 35 U.S.C. 103 (a) over Iwase, et al (US Patent 6,469,844 B1-- US '844).

Iwase, et al, disclose a lens holder for a lens element 4 of a camera and a method of holding lens element 4 in the camera. The lens element 4 does have an outer flat flange 22 (equivalent to the holding edge 4) of the present application and a cylindrical flange 4c that extends downward from the bottom surface of the lens. The cylindrical flange 4c is similar to the supporting edge 5 of the present lens claimed in claim 8.

A. Lens Claims 8 to 13

However there are differences between the lens element 4 disclosed in Iwase, et al, and the lens claimed in applicants' claims 8 to 13.

Claim 8 has been amended to further distinguish its subject matter from the cited prior art reference Iwase, et al. US '844 teaches a plastic lens for a camera that has an outer flat flange 22 (similar to holding edge 4) with a cylindrical outer peripheral edge surface. However the cylindrical flange 4c, which is similar to the supporting edge 5, is set back or set in from the outer peripheral edge surface of the outer flat flange 22 as shown e.g. fig. 3A of US '844. Thus Iwase, et al, does not teach a lens element with the newly added feature in claim 8, namely that the supporting edge 5 and the holding edge 4 together form a continuous cylindrical outer circumferential surface 45 extending over an outer side of the supporting edge and an outer side of the holding edge 4 as well as around an outer circumference of the lens.

This feature added to claim 8 has some importance because it makes it easier to engage and hold the lens 1 in the holder 10 of the projection headlight. The lens element of US '844 provides only a comparatively narrow outer peripheral edge surface and relies on friction to hold the edges of the lens with the claws 6a of the holder 10 as shown in figs.6A and 6B of US '844. This sort of holding arrangement would not be sufficient to hold the claimed lens 1 in a holder 10 of a projection headlight because it is typically much heavier and is subjected to impacts when mounted in a motor vehicle. Thus the additional larger continuous outer circumferential surface provided by both the supporting edge 5

and the holding edge 4 helps to provide for a stronger better engagement in the holder 10, which better withstands impacts and forces that act to dislodge the lens 1.

Also, the lens element 4 is described in column 3, line 22, as a "positive power injection-molded resin lens" with a convex front surface. Thus the only lens disclosed in Iwase, et al, consists of a thermoplastic resin material. A thermoplastic resin material cannot have "bright-pressed" surfaces as claimed in applicants' claim 8 because it cannot be bright pressed and thus must be made of a different material applicants' claimed lens. The reason the lens element 4 of Iwase, et al, cannot be bright pressed is that the thermoplastic resin material could not withstand the high temperatures used in the bright pressing method. A prior art reference, the Annual Report 1999 of "Fraunhofer Institut Werkstoffmechanik" describing molds for "bright pressing" was filed with an Information Disclosure Statement to support these statements. The reference states that the process temperatures used in "bright pressing" are 500°C to 700°C. Organic plastic resin materials cannot withstand these temperatures.

Only inorganic materials, such as glass, withstand the temperatures involved in bright pressing methods. Thus the lens of claim 8 is inherently limited to inorganic materials, such as glass. Other statements in the specification support this conclusion. For example, the statement that grinding and polishing may be dispensed with because the lens surfaces are bright pressed is further evidence that the claimed lens is inherently made of inorganic material. Plastic lenses would not be subjected to grinding methods, because they are easily cast

or molded at comparatively low temperatures. Also a plastic lens does not need a "cooling furnace" as disclosed on page 1 of applicants' specification. Furthermore the temperatures produced in projection headlights for automobiles are too high for plastic lenses and glass lenses are uniformly used in this sort of headlight.

It is respectfully submitted that the lens disclosed in applicants' specification is inherently limited to an inorganic material that can withstand the high temperatures used in bright pressing methods. Thus a reference that only discloses a lens made of organic resin or plastic materials cannot anticipate the invention claimed in claim 8. The disclosure in Iwase, et al, regarding the lens instead of the lens holder is limited to the particular lens disclosed in the detailed description in the specification of Iwase, et al, and shown in the figures of that reference, which is a plastic resin lens.

It is well established by many US Court decisions that to reject a claimed invention under 35 U.S.C. 103 there must be some hint or suggestion in the prior art of the modifications of the disclosure in a prior art reference or references used to reject the claimed invention, which are necessary to arrive at the claimed invention. For example, the Court of Appeals for the Federal Circuit has said:

"Rather, to establish obviousness based on a combination of elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the applicant...Even when obviousness is based on as single reference there must be a showing of a suggestion of motivation to modify the teachings of that reference.." *In re Kotzab*, 55 U.S.P.Q. 2nd 1313 (Fed. Cir. 2000). See also M.P.E.P. 2141

There is no suggestion or motivation for one skilled in the art to replace the plastic resin lens for the camera disclosed in Iwase, et al, which has a cylindrical flange 4c (similar to supporting edge 5) that is set in or set back from the outer peripheral edge surface of the annular flat flange 22 with applicants' lens structure with the continuous cylindrical outer circumferential surface 45 as claimed in the amended claim 8. This provides a better gripping surface for the holder. Motivation or suggestion is lacking because the camera application does not require a mounting for the lens element that is strong enough to withstand the forces experienced by a projection headlight.

For the foregoing reasons it is respectfully submitted that Iwase, et al, does not establish a case of *prima facie* obviousness of the amended lens claims 8 to 13.

B. Projection Headlight Claims 14 and 17

The structure of the holder 3 of Iwase, et al, is incorrectly described on page 4 of the Office Action.

First, claim 14 clearly states that the holder 10 substantially consists of a sheet metal ring with a circumferential wall 11. The word "metal" is never mentioned in Iwase, et al. US '844 never states, discloses or suggests that the holder 3 consists of or comprises a sheet metal ring! However the holder 3 of Iwase, et al, does have a circumferential wall. The parts of the camera of US '844, which is a one-time use camera, are conveniently made of plastic.

Second, US '844 does not teach or suggest that the circumferential wall

11 bears on the continuous cylindrical outer circumferential surface 45 comprising the outer peripheral edge surfaces of the supporting edge 5 and the holding edge 4. The lwaase reference could not state that because the part 4c, which is equivalent to the supporting edge 5, is set back from the outer peripheral edge of the lens. The additional bearing or gripping surface provides a stronger mounting of the applicants' lens.

Third, US '844 does not disclose or suggest that the flaps 12 are engaged under the supporting edge 5, as claimed in the amended claim 14. US '844 describes a new method of fixing the lens in the lens holder, so that the lens can easily be removed from the lens holder for recycling (col. 2, lines 3 - 5). For this purpose the fixing claws 6a are thermally softened and pressed against the annular flat flange of the lens, see figures 3 b and 6 a. The fixing claws 6a are not supposed to extend across the edge of the annular flat flange of the lens (see col. 4, line 62, to col. 5, line 4). Only if there are irregularities in the production process does a irregular deformation of the fixing claw occur so that the fixing claw *might* project marginally across the edge of the annular flat flange 22 (see col. 5, lines 4-14). However, the amount of projection of the fixing claws is too small to arrest the easy removal of the lens. Thus the claws 6a are not equivalent in their function to the flaps 12 of claim 14 because the claws 6a ideally bear only on the outer side surfaces of the lens, and do not extend over the peripheral edge to grip lens as is the case for the flaps 12.

In addition, independent projection headlight claim 14 includes lens holder 10, which embraces the holding edge fully circumferentially on the side having

the convex surface, i.e. the front surface. The holder of lwase, et al, does not have a structure that fully embraces the holding edge circumferentially on the side with the convex surface. Instead a caulking tool 5 is used to bend fixing claws 6a so that they are deformed and bear on the lateral sides or edges of the lens, as shown in figs. 3a, 3b and figs. 6a, 6b. However these claws 6a only occur at fairly widely spaced intervals around the holder 3 of US '844 and do not grip the lens at all points around the lens's circumference, because the forces required to hold the camera lens in place are much smaller than the forces required to hold the projection lens in holder 10 as claimed in claim 14

The modifications of the lens holder of lwase, et al, to obtain or arrive at the lens holder 10, as claimed in amended claim 14, are not suggested in the art because the respective applications are entirely different. The lens holder 10 of applicants' amended claim 14 is adapted to the headlight application and particularly securely holds the lens even in the event of impacts to the vehicle. The plastic lens holder of lwase, et al, does not need to withstand impacts and does not engage around the lens in the same manner as applicants' holder 10.

The structure of the lens holder 10 of applicants' amended claim 14 would not be obvious to one skilled in the art from disclosure of the lens holder in lwase, et al.


New headlight claim 17 claims a headlight comprising the lens of amended claim 8 and claims 10 and 12. This claim for the headlight is not obvious from lwase, et al, for the reasons stated previously above regarding claims 10 and 12 as well as the amended claim 8.

For the foregoing reasons and because of the changes in the amended claims 8, 14, and 17, withdrawal of the rejection of claims 8 to 15 and 17 under 35 U.S.C. 103 (a) over Iwase, et al, is respectfully requested.

Should the Examiner require or consider it advisable that the specification, claims and/or drawing be further amended or corrected in formal respects to put this case in condition for final allowance, then it is requested that such amendments or corrections be carried out by Examiner's Amendment and the case passed to issue. Alternatively, should the Examiner feel that a personal discussion might be helpful in advancing the case to allowance, he or she is invited to telephone the undersigned at 1-631-549 4700.

In view of the foregoing, favorable allowance is respectfully solicited.

Respectfully submitted,



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